Dell™ Latitude™ D531 Quick Reference Guide

Model PP04X

Notes, Notices, and Cautions

NOTE: A NOTE indicates important information that helps you make better use of your computer.

NOTICE: A NOTICE indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

CAUTION: A CAUTION indicates a potential for property damage, personal injury, or death.

Abbreviations and Acronyms

For a complete list of abbreviations and acronyms, see the Glossary in your User's Guide.

If you purchased a Dell™ n Series computer, any references in this document to Microsoft® Windows® operating systems are not applicable.



NOTE: Some features or media may be optional and may not ship with your computer. Some features or media may not be available in certain countries.

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Model PP04X

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Finding Information



NOTE: Some features or media may be optional and may not ship with your computer. Some features or media may not be available in certain countries.



NOTE: Additional information may ship with your computer.

What Are You Looking For?

- A diagnostic program for my computer
- Drivers for my computer
- · My device documentation
- Notebook System Software (NSS)

Find It Here

Drivers and Utilities Media

NOTE: The *Drivers and Utilities* media may be optional and may not ship with your computer.

Documentation and drivers are already installed on your computer. You can use the media to reinstall drivers and to run the Dell Diagnostics (see "Dell Diagnostics" on page 17).



Readme files may be included on your media to provide last-minute updates about technical changes to your computer or advanced technical-reference material for technicians or experienced users.

NOTE: Drivers and documentation updates can be found at support.dell.com.

NOTE: The *Drivers and Utilities* media may be optional and may not ship with your computer.

- Warranty information
- Terms and Conditions (U.S. only)
- · Safety instructions
- Regulatory information
- Ergonomics information
- · End User License Agreement

Dell™ Product Information Guide



- How to remove and replace parts
- Specifications
- How to configure system settings
- How to troubleshoot and solve problems

User's Guide

Microsoft Windows Help and Support Center

- 1 Click Start or → Help and Support → Dell User and System Guides→ System Guides.
- **2** Click the *User's Guide* for your computer.

What Are You Looking For?

- · Service Tag and Express Service Code
- · Microsoft Windows License Label

Find It Here

Service Tag and Microsoft® Windows® License

These labels are located on your computer.

- Use the Service Tag to identify your computer when you use support.dell.com or contact support.
- Enter the Express Service Code to direct your call when contacting support.



NOTE: The Microsoft

Windows License label has been redesigned with a hole, or "security portal," as an increased security measure.

- Solutions Troubleshooting hints and tips, articles from technicians, online courses, and frequently asked questions
- Community Online discussion with other Dell customers
- Upgrades Upgrade information for components, such as memory, the hard drive, and the operating system
- Customer Care Contact information, service call and order status, warranty, and repair information
- Service and support Service call status and support history, service contract, online discussions with technical support
- Reference Computer documentation, details on my computer configuration, product specifications, and white papers
- Downloads Certified drivers, patches, and software updates
- Notebook System Software (NSS)—If you reinstall the operating system for your computer, you should also reinstall the NSS utility. NSS provides critical updates for your operating system and support for Dell™ 3.5-inch USB floppy drives, AMD™ processors, optical drives, and USB devices. NSS is necessary for correct operation of your Dell computer. The software automatically detects your computer and operating system and installs the updates appropriate for your configuration.

Dell Support Website — support.dell.com

NOTE: Select your region or business segment to view the appropriate support site.

To download Notebook System Software:

- **1** Go to **support.dell.com**, select your region or business segment, and enter your Service Tag.
- 2 Select Drivers & Downloads and click Go.
- **3** Click your operating system and search for the keyword *Notebook System Software*.

NOTE: The **support.dell.com** user interface may vary depending on your selections.

What Are You Looking For?	Find It Here							
Software upgrades and troubleshooting hints — Frequently asked questions, hot topics, and general health of your computing environment	The Dell Support Utility is an automated upgrade and notification system installed on your computer. This support provides real-time health scans of your computing environment, software updates, and relevant self-support information. Access the Dell Support Utility from the icon in the task bar. For more information, see "Dell Support Utility" in your User's Guide.							
 How to use Windows operating systems How to work with programs and files How to personalize my desktop 	 Windows Help and Support Center 1 Click the Start button or → Help and Support. 2 Type a word or phrase that describes your problem and click the arrow icon. 3 Click the topic that describes your problem. 4 Follow the instructions on the screen. 							
Information on network activity, the Power Management Wizard, hotkeys, and other items controlled by Dell QuickSet.	To view Dell QuickSet Help, right-click the QuickSet icon in the Microsoft [®] Windows [®] task bar. For more information on Dell QuickSet, see "Dell™ QuickSet" in your User's Guide.							
How to reinstall my operating system	The operating system is already installed on your computer. See "Restoring Your Operating System" in your <i>User's Guide</i> .							

Setting Up Your Computer



CAUTION: Before you begin any of the procedures in this section, follow the safety instructions in the **Product Information Guide.**

- **1** Unpack the accessories box.
- 2 Set aside the contents of the accessories box, which you will need to complete the setup of your computer. The accessories box also contains user documentation and any software or additional hardware (such as PC Cards, drives, or batteries) that you have ordered.
- Connect the AC adapter to the AC adapter connector on the computer and to the electrical outlet.



4 Open the computer display and press the power button to turn on the computer (see "Front View" on page 9).



NOTE: It is recommended that you turn on and shut down your computer at least once before you install any cards or connect the computer to a docking device or other external device, such as a printer.

About Your Computer

Front View



- display latch
- device status lights
- touch pad
- wireless enable/disable button 11
- display 2
- speakers (2) 5
 - touch pad buttons
- ambient light sensor
- power button 3
- keyboard
- keyboard status lights

Left Side View



- security cable slot
- air vent

IEEE 1394 connector

- audio connectors (2)
- PC Card slot 5

hard drive

Right Side View



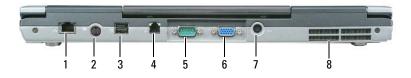
media bay

2 device latch release USB connectors (2)

Back View



CAUTION: Do not block, push objects into, or allow dust to accumulate in the air vents. Do not store your computer in a low-airflow environment, such as a closed briefcase, while it is running. Restricting the airflow can damage the computer or cause a fire.



- network connector (RJ-45)
- 2 S-video TV-out connector
- USB connectors (2)

- modem connector (RJ-11)
- 5 serial connector
- VGA connector

- AC adapter connector
- air vents

Bottom View



- 1 battery charge gauge
- memory module/coin-cell battery 5 4 cover
- hard drive 7

- battery-bay latch release
- docking device slot
- battery
- air vents

Using a Battery

Battery Performance



NOTE: For information about the Dell warranty for your computer, see the *Product Information Guide* or separate paper warranty document that shipped with your computer.

For optimal computer performance and to help preserve BIOS settings, operate your Dell™ portable computer with the main battery installed at all times. One battery is supplied as standard equipment in the battery bay.



NOTE: Because the battery may not be fully charged, use the AC adapter to connect your new computer to an electrical outlet the first time you use the computer. For best results, operate the computer with the AC adapter until the battery is fully charged. To view battery charge status, click Start→ Control Panel→ Power Options→ Power Meter.



NOTE: Battery operating time (the time the battery can hold a charge) decreases over time. Depending on how often the battery is used and the conditions under which it is used, you may need to purchase a new battery during the life of your computer.

Battery operating time varies depending on operating conditions. You can install an optional second battery in the media bay to significantly increase operating time.

Operating time is significantly reduced when you perform operations including, but not limited to, the following:

- Using optical drives
- Using wireless communications devices, PC Cards, ExpressCards, media memory cards, or USB devices
- Using high-brightness display settings, 3D screen savers, or other power-intensive programs such as complex 3D graphics applications
- Running the computer in maximum performance mode (see "Configuring Power Management Settings" in your User's Guide).



NOTE: It is recommended that you connect your computer to an electrical outlet when writing to a CD or DVD.

You can check the battery charge before you insert the battery into the computer (see "Checking the Battery Charge" on page 13). You can also set power management options to alert you when the battery charge is low (see "Configuring Power Management Settings" in your User's Guide).



/ CAUTION: Using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell. The lithium-ion battery is designed to work with your Dell computer. Do not use a battery from other computers with your computer.



/!\ CAUTION: Do not dispose of batteries with household waste. When your battery no longer holds a charge, call your local waste disposal or environmental agency for advice on disposing of a lithium-ion battery. See "Battery Disposal" in the *Product Information Guide*.



/!\ CAUTION: Misuse of the battery may increase the risk of fire or chemical burn. Do not puncture, incinerate, disassemble, or expose the battery to temperatures above 60°C (140°F). Keep the battery away from children. Handle damaged or leaking batteries with extreme care. Damaged batteries may leak and cause personal injury or equipment damage.

Checking the Battery Charge

The Dell QuickSet Battery Meter, the Microsoft Windows Power Meter window and 📔 icon, the battery charge gauge and health gauge, and the low-battery warning provide information on the battery charge.

Dell™ QuickSet Battery Meter

If Dell QuickSet is installed, press <Fn><F3> to display the QuickSet Battery Meter. The Battery Meter displays status, battery health, charge level, and charge completion time for the battery in your computer. For more information about QuickSet, right-click the QuickSet icon in the task bar, and click Help.

Microsoft® Windows® Power Meter

The Windows Power Meter indicates the remaining battery charge. To check the Power Meter, double-click the 📔 icon on the task bar.

If the computer is connected to an electrical outlet, a 🔙 icon appears.

Charge Gauge

By either pressing once or pressing and holding the status button on the charge gauge on the battery, vou can check:

- Battery charge (check by pressing and *releasing* the status button)
- Battery health (check by pressing and *holding* the status button)

The battery operating time is largely determined by the number of times it is charged. After hundreds of charge and discharge cycles, batteries lose some charge capacity—or battery health. That is, a battery can show a status of "charged" but maintain a reduced charge capacity (health).

Check the Battery Charge

To check the battery charge, *press and release* the status button on the battery charge gauge to illuminate the charge-level lights. Each light represents approximately 20 percent of the total battery charge. For example, if the battery has 80 percent of its charge remaining, four of the lights are on. If no lights appear, the battery has no charge.

Check the Battery Health



NOTE: You can check battery health in one of two ways: by using the charge gauge on the battery as described below and by using the Battery Meter in Dell QuickSet. For information about QuickSet, right-click the QuickSet icon in the task bar, and click Help.

To check the battery health using the charge gauge, press and hold the status button on the battery charge gauge for at least 3 seconds. If no lights appear, the battery is in good condition, and more than 80 percent of its original charge capacity remains. Each light represents incremental degradation. If five lights appear, less than 60 percent of the charge capacity remains, and you should consider replacing the battery. See "Specifications" in your *User's Guide* for more information about the battery operating time.

Low-Battery Warning



NOTICE: To avoid losing or corrupting data, save your work immediately after a low-battery warning. Then connect the computer to an electrical outlet, or install a second battery in the media bay. If the battery runs completely out of power, hibernate mode begins automatically.

By default, a pop-up window warns you when the battery charge is approximately 90 percent depleted. You can change the settings for the battery alarms in QuickSet or the Power Options Properties window. See "Configuring Power Management Settings" in your User's Guide for information about accessing OuickSet or the **Power Options Properties** window.

Charging the Battery



NOTE: With Dell[™] ExpressCharge[™], when the computer is turned off, the AC adapter charges a completely discharged battery to 80 percent in about 1 hour and to 100 percent in approximately 2 hours. Charge time is longer with the computer turned on. You can leave the battery in the computer for as long as you like. The battery's internal circuitry prevents the battery from overcharging.



NOTE: You must use a 90-Watt AC adaptor to use ExpressCharge a 9-cell battery.

When you connect the computer to an electrical outlet or install a battery while the computer is connected to an electrical outlet, the computer checks the battery charge and temperature. If necessary, the AC adapter then charges the battery and maintains the battery charge.

If the battery is hot from being used in your computer or being in a hot environment, the battery may not charge when you connect the computer to an electrical outlet.

The battery is too hot to start charging if the 👖 light flashes alternately green and orange. Disconnect the computer from the electrical outlet and allow the computer and the battery to cool to room temperature. Then connect the computer to an electrical outlet to continue charging the battery.

For more information about resolving problems with a battery, see "Power Problems" in your User's Guide.

Removing the Battery



/!\ CAUTION: Before performing these procedures, turn off the computer, disconnect the AC adapter from the electrical outlet and the computer, disconnect the modem from the wall connector and computer, and remove any other external cables from the computer.



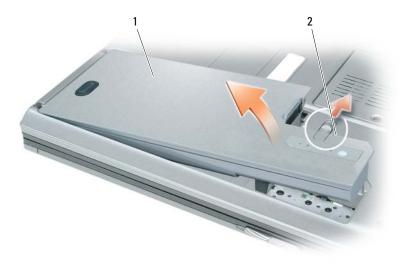
/!\ CAUTION: Using an incompatible battery may increase the risk of fire or explosion. Replace the battery only with a compatible battery purchased from Dell. The battery is designed to work with your Dell™ computer. Do not use a battery from other computers with your computer.



NOTICE: You must remove all external cables from the computer to avoid possible connector damage. For information about replacing the second battery, which is located in the media bay, see "Using Multimedia" in your User's Guide.

To remove the battery:

- 1 If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.
- **2** Ensure that the computer is turned off, in hibernate mode, or connected to AC adapter.
- NOTICE: Removing the battery in while the computer is in standby mode (without AC power) causes the computer to shut down and may result in loss of data.
- Slide and hold the battery-bay latch release on the bottom of the computer.
- Lift the battery out of the battery bay.



battery-bay latch release battery

To replace the battery, place the battery in the bay and press down until the battery-bay latch release clicks.

Storing a Battery

Remove the battery when you store your computer for an extended period of time. A battery discharges during prolonged storage. After a long storage period, recharge the battery fully before you use it (see "Charging the Battery" on page 14).

Troubleshooting

Lockups and Software Problems



CAUTION: Before you begin any of the procedures in this section, follow the safety instructions in the Product Information Guide.

The computer does not start up

ENSURE THAT THE AC ADAPTER IS FIRMLY CONNECTED TO THE COMPUTER AND TO THE ELECTRICAL OUTLET.

The computer stops responding



NOTICE: You might lose data if you are unable to perform an operating system shutdown.

Turn the computer off — If you are unable to get a response by pressing a key on your keyboard or moving your mouse, press and hold the power button for at least 8 to 10 seconds until the computer turns off. Then restart your computer.

A program stops responding or crashes repeatedly



NOTE: Software usually includes installation instructions in its documentation or on a floppy disk or CD.

END THE PROGRAM -

- **1** Press <Ctrl> <Shift> <Esc> simultaneously.
- 2 Click Task Manager.
- **3** Click Applications.
- **4** Click the program that is no longer responding.
- **5** Click End Task.

CHECK THE SOFTWARE DOCUMENTATION — If necessary, uninstall and then reinstall the program.

A program is designed for an earlier operating system version

RUN THE PROGRAM COMPATIBILITY WIZARD — The Program Compatibility Wizard configures a program so that it runs in an environment similar to non-Windows XP operating system environments.

- 1 Click Start→ All Programs→ Accessories→ Program Compatibility Wizard→ Next.
- **2** Follow the instructions on the screen.

A solid blue screen appears

TURN THE COMPUTER OFF — If you are unable to get a response by pressing a key on your keyboard or moving your mouse, press and hold the power button for at least 8 to 10 seconds until the computer turns off. Then restart your computer.

Other software problems

CHECK THE SOFTWARE DOCUMENTATION OR CONTACT THE SOFTWARE MANUFACTURER FOR TROUBLESHOOTING INFORMATION —

- Ensure that the program is compatible with the operating system installed on your computer.
- Ensure that your computer meets the minimum hardware requirements needed to run the software. See the software documentation for information.
- Ensure that the program is installed and configured properly.
- Verify that the device drivers do not conflict with the program.
- If necessary, uninstall and then reinstall the program.

BACK UP YOUR FILES IMMEDIATELY.

USE A VIRUS-SCANNING PROGRAM TO CHECK THE HARD DRIVE, FLOPPY DISKS, OR CDS.

SAVE AND CLOSE ANY OPEN FILES OR PROGRAMS AND SHUT DOWN YOUR COMPUTER THROUGH THE Start MENU.

SCAN THE COMPUTER FOR SPYWARE — If you are experiencing slow computer performance, you frequently receive pop-up advertisements, or you are having problems connecting to the Internet, your computer might be infected with spyware. Use an anti-virus program that includes anti-spyware protection (your program may require an upgrade) to scan the computer and remove spyware. For more information, go to **support.dell.com** and search for the keyword *spyware*.

RUN THE DELL DIAGNOSTICS — See "Dell Diagnostics" on page 17. If all tests run successfully, the error condition is related to a software problem.

Dell Diagnostics



CAUTION: Before you begin any of the procedures in this section, follow the safety instructions in the **Product Information Guide.**

When to Use the Dell Diagnostics

If you experience a problem with your computer, perform the checks in "Lockups and Software Problems" on page 16 and run the Dell Diagnostics before you contact Dell for technical assistance.

It is recommended that you print these procedures before you begin.



NOTICE: The Dell Diagnostics works only on Dell™ computers.



NOTE: The *Drivers and Utilities* Media is optional and may not ship with your computer.

Start the Dell Diagnostics from either your hard drive or from the Drivers and Utilities media.

Starting the Dell Diagnostics From Your Hard Drive

The Dell Diagnostics is located on a hidden diagnostic utility partition on your hard drive.



NOTE: If your computer cannot display a screen image, contact Dell (see "Contacting Dell" in your *User's Guide*).



NOTE: If the computer is connected to a docking device (docked), undock it. See the documentation that came with your docking device for instructions.

- 1 Ensure that the computer is connected to an electrical outlet that is known to be working properly.
- **2** Turn on (or restart) your computer.
- **3** Start the Dell Diagnostics in one of the following two ways:
 - **a** When the DELL™ logo appears, press <F12> immediately. Select **Diagnostics** from the boot menu and press <Enter>.
 - **NOTE:** If you wait too long and the operating system logo appears, continue to wait until you see the Microsoft[®] Windows[®] desktop; then, shut down your computer and try again.
 - **NOTE:** Before attempting option b, the computer must be powered down completely.
 - **b** Press and hold the <Fn> key while powering the computer on.
 - **NOTE:** If you see a message stating that no diagnostics utility partition has been found, run the Dell Diagnostics from the *Drivers and Utilities* media.

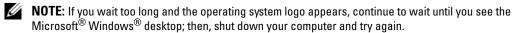
The computer runs the Pre-boot System Assessment (PSA), a series of initial tests of your system board, keyboard, display, memory, hard drive, and so on.

- During the assessment, answer any questions that appear.
- If failures are detected during the Pre-boot System Assessment, write down the error code(s) and see "Contacting Dell" in your *User's Guide*.
- **4** If the Pre-boot System Assessment completes successfully, you will receive the message, "Booting Dell Diagnostic Utility Partition. Press any key to continue".
- **5** Press any key to start the Dell Diagnostics from the diagnostics utility partition on your hard drive.

Starting the Dell Diagnostics From the Drivers and Utilities Media

- **1** Insert the *Drivers and Utilities* Media.
- **2** Shut down and restart the computer.

When the DELL logo appears, press <F12> immediately.



NOTE: The next steps change the boot sequence for one time only. On the next start-up, the computer boots according to the devices specified in the system setup program.

- **3** When the boot device list appears, highlight CD/DVD/CD-RW Drive and press <Enter>.
- **4** Select the **Boot from CD-ROM** option from the menu that appears and press <Enter>.
- **5** Type 1 to start the menu and press <Enter> to proceed.
- **6** Select **Run the 32 Bit Dell Diagnostics** from the numbered list. If multiple versions are listed, select the version appropriate for your computer.
- 7 When the Dell Diagnostics Main Menu appears, select the test you want to run.

Dell Diagnostics Main Menu

1 After the Dell Diagnostics loads and the Main Menu screen appears, click the button for the option you want.



NOTE: It is recommended that you select Test System to run a complete test on your computer.

Option	Function
Test Memory	Runs the stand-alone memory test
Test System	Runs System Diagnostics
Exit	Exits the Diagnostics

2 After you have selected the Test System option from the main menu, the following menu appears.



NOTE: It is recommended that you select Extended Test from the menu below to run a more thorough check of devices in the computer.

Option	Function
Express Test	Performs a quick test of devices in the system. This typically can take 10 to 20 minutes.
Extended Test	Performs a thorough check of devices in the system. This typically can take an hour or more.
Custom Test	Use to test a specific device or customize the tests to be run.
Symptom Tree	This option allows you to select tests based on a symptom of the problem you are having. This option lists the most common symptoms.

If a problem is encountered during a test, a message appears with an error code and a description of the problem. Write down the error code and problem description and contact Dell (see Contacting Dell in your User's Guide).



NOTE: The Service Tag for your computer is located at the top of each test screen. If you contact Dell, technical support will ask for your Service Tag.

4 If you run a test from the Custom Test or Symptom Tree option, click the applicable tab described in the following table for more information.

Tab	Function
Results	Displays the results of the test and any error conditions encountered.
Errors	Displays error conditions encountered, error codes, and the problem description.
Help	Describes the test and may indicate requirements for running the test.
Configuration	Displays your hardware configuration for the selected device.
	The Dell Diagnostics obtains configuration information for all devices from system setup, memory, and various internal tests, and it displays the information in the device list in the left pane of the screen. The device list may not display the names of all the components installed on your computer or all devices attached to your computer.
Parameters	Allows you to customize the test by changing the test settings.

- **5** When the tests are complete, close the test screen to return to the **Main Menu** screen. To exit the Dell Diagnostics and restart the computer, close the **Main Menu** screen.
- **6** Remove the Dell *Drivers and Utilities* media (if applicable).

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